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<110>   Chang, Nancy T
        Gallo, Robert C.
        Wong-Staal, Flossie

<120>   DETECTION OF HIV-1 DNA

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Page 13

Gln Pro Ser Leu Gln Thr Gly Ser Glu Glu Leu Arg Ser Leu Tyr Asn
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Thr Lys Glu Ala Leu Asp Lys Ile Glu Glu Gln Asn Lys Ser Lys
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Lys Lys Ala Gln Gln Ala Ala Ala Asp Thr Gly His Ser Ser Gln Val
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Ser Gln Asn Tyr Pro Ile Val Gln Asn Ile Gln Gly Gln Met Val His
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Gln Ala Ile Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Val Glu
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Glu Lys Ala Phe Ser Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser
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Glu Gly Ala Thr Pro Gln Asp Leu Asn Thr Met Leu Asn Thr Val Gly
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Gly His Gln Ala Ala Met Gln Met Leu Lys Glu Thr Ile Asn Glu Glu
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Ala Ala Glu Trp Asp Arg Val His Pro Val His Ala Gly Pro Ile Ala
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Pro Gly Gln Met Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr
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Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys
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Ile Val Arg Met Tyr Ser Pro Thr Ser Ile Leu Asp Ile Arg Gln Gly
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Pro Lys Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe Tyr Lys Thr Leu
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                                Page 14

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Gln Val Thr Asn Thr Ala Thr Ile Met Met Gln Arg Gly Asn Phe Arg
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Asn Gln Arg Lys Met Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His
385   390   395   400

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Gly Lys Glu Gly His Gln Met Lys Asp Cys Thr Glu Arg Gln Ala Asn
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Phe Leu Gly Lys Ile Trp Pro Ser Tyr Lys Gly Arg Pro Gly Asn Phe
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            85   90   95

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        100   105   110

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Glu Lys Glu Gly Lys Ile Ser Lys Ile Gly Pro Glu Asn Pro Tyr Asn
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    290   295   300

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Lys Gly Ser Pro Ala Ile Phe Gln Ser Ser Met Thr Lys Ile Leu Glu
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Pro Phe Lys Lys Gln Asn Pro Asp Ile Val Ile Tyr Gln Tyr Met Asp
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Asp Leu Tyr Val Gly Ser Asp Leu Glu Ile Gly Gln His Arg Thr Lys
        355   360   365

Ile Glu Glu Leu Arg Gln His Leu Leu Arg Trp Gly Leu Thr Thr Pro
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Asp Lys Lys His Gln Lys Glu Pro Pro Phe Leu Trp Met Gly Tyr Glu
385   390   395   400

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Asp Ser Trp Thr Val Asn Asp Ile Gln Lys Leu Val Gly Lys Leu Asn
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Trp Ala Ser Gln Ile Tyr Pro Gly Ile Lys Val Arg Gln Leu Cys Lys
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    450   455   460

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Trp Tyr Gln Leu Glu Lys Glu Pro Ile Val Gly Ala Glu Thr Phe Tyr
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Ala Gly Ile Arg Lys Ile Leu Phe Leu Asp Gly Ile Asp Lys Ala Gln
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Asp Glu His Glu Lys Tyr His Ser Asn Trp Arg Ala Met Ala Ser Asp
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Lys Cys Gln Leu Lys Gly Glu Ala Met His Gly Gln Val Asp Cys Ser
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Pro Gly Ile Trp Gln Leu Asp Cys Thr His Leu Glu Gly Lys Val Ile
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Gly Arg Trp Pro Val Lys Thr Ile His Thr Asp Asn Gly Ser Asn Phe
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Leu Ala Ala Leu Ile Thr Pro Lys Lys Ile Lys Pro Pro Leu Pro Ser
            165   170   175

Val Thr Lys Leu Thr Glu Asp Arg Trp Asn Lys Pro Gln Lys Thr Lys

                180   185   190

Gly His Arg Gly Ser His Thr Met Asn Gly His
        195   200

<210>   11
<211>   863
<212>   PRT
<213>   T cell leukemia-lymphoma virus (HTLV)

<220>
<221>   MISC_FEATURE
<222>   (1)..(863)
<223>   /note= "env protein of HTLV-III"

<400>   11

Lys Glu Gln Lys Thr Val Ala Met Arg Val Lys Glu Lys Tyr Gln His
1   5   10   15

Leu Trp Arg Trp Gly Trp Arg Trp Gly Thr Met Leu Leu Gly Met Leu
            20   25   30

Met Ile Cys Ser Ala Thr Glu Lys Leu Trp Val Thr Val Tyr Tyr Gly
        35   40   45

Val Pro Val Trp Lys Glu Ala Thr Thr Thr Leu Phe Cys Ala Ser Asp
    50   55   60

Ala Lys Ala Tyr Asp Thr Glu Val His Asn Val Trp Ala Thr His Ala
65   70   75   80

Cys Val Pro Thr Asp Pro Asn Pro Gln Glu Val Val Leu Val Asn Val
                85   90   95

Thr Glu Asn Phe Asn Met Trp Lys Asn Asp Met Val Glu Gln Met His
            100   105   110

Glu Asp Ile Ile Ser Leu Trp Asp Gln Ser Leu Lys Pro Cys Val Lys
        115   120   125

Leu Thr Pro Leu Cys Val Ser Leu Lys Cys Thr Asp Leu Lys Asn Asp
    130   135   140

Thr Asn Thr Asn Ser Ser Ser Gly Arg Met Ile Met Glu Lys Gly Glu
145   150   155   160

Ile Lys Asn Cys Ser Phe Asn Ile Ser Thr Ser Ile Arg Gly Lys Val
                165   170   175

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Gln Lys Glu Tyr Ala Phe Phe Tyr Lys Leu Asp Ile Ile Pro Ile Asp
            180   185   190

Asn Asp Thr Thr Ser Tyr Thr Leu Thr Ser Cys Asn Thr Ser Val Ile
        195   200   205

Thr Gln Ala Cys Pro Lys Val Ser Phe Glu Pro Ile Pro Ile His Tyr
    210   215   220

Cys Ala Pro Ala Gly Phe Ala Ile Leu Lys Cys Asn Asn Lys Thr Phe
225   230   235   240

Asn Gly Thr Gly Pro Cys Thr Asn Val Ser Thr Val Gln Cys Thr His
            245   250   255

Gly Ile Arg Pro Val Val Ser Thr Gln Leu Leu Leu Asn Gly Ser Leu
            260   265   270

Ala Glu Glu Glu Val Val Ile Arg Ser Ala Asn Phe Thr Asp Asn Ala
    275   280   285

Lys Thr Ile Ile Val Gln Leu Asn Gln Ser Val Glu Ile Asn Cys Thr
    290   295   300

Arg Pro Asn Asn Asn Thr Arg Lys Ser Ile Arg Ile Gln Arg Gly Pro
305   310   315   320

Gly Arg Ala Phe Val Thr Ile Gly Lys Ile Gly Asn Met Arg Gln Ala
            325   330   335

His Cys Asn Ile Ser Arg Ala Lys Trp Asn Asn Thr Leu Lys Gln Ile
            340   345   350

Asp Ser Lys Leu Arg Glu Gln Phe Gly Asn Asn Lys Thr Ile Ile Phe
    355   360   365

Lys Gln Ser Ser Gly Gly Asp Pro Glu Ile Val Thr His Ser Phe Asn
    370   375   380

Cys Gly Gly Glu Phe Phe Tyr Cys Asn Ser Thr Gln Leu Phe Asn Ser
385   390   395   400

Thr Trp Phe Asn Ser Thr Trp Ser Thr Lys Gly Ser Asn Asn Thr Glu
            405   410   415

Gly Ser Asp Thr Ile Thr Leu Pro Cys Arg Ile Lys Gln Ile Ile Asn
            420   425   430

Met Trp Gln Glu Val Gly Lys Ala Met Tyr Ala Pro Pro Ile Ser Gly
        435   440   445

Gln Ile Arg Cys Ser Ser Asn Ile Thr Gly Leu Leu Leu Thr Arg Asp
        450   455   460

Gly Gly Asn Ser Asn Asn Glu Ser Glu Ile Phe Arg Pro Gly Gly Gly
465   470   475   480

Asp Met Arg Asp Asn Trp Arg Ser Glu Leu Tyr Lys Tyr Lys Val Val
                485   490   495

Lys Ile Glu Pro Leu Gly Val Ala Pro Thr Lys Ala Lys Arg Arg Val
            500   505   510

Val Gln Arg Glu Lys Arg Ala Val Gly Ile Gly Ala Leu Phe Leu Gly
        515   520   525

Phe Leu Gly Ala Ala Gly Ser Thr Met Gly Ala Ala Ser Met Thr Leu
    530   535   540

Thr Val Gln Ala Arg Gln Leu Leu Ser Gly Ile Val Gln Gln Gln Asn
545   550   555   560

Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Leu Leu Gln Leu Thr
                565   570   575

Val Trp Gly Ile Lys Gln Leu Gln Ala Arg Ile Leu Ala Val Glu Arg
            580   585   590

Tyr Leu Lys Asp Gln Gln Leu Leu Gly Ile Trp Gly Cys Ser Gly Lys
        595   600   605

Leu Ile Cys Thr Thr Ala Val Pro Trp Asn Ala Ser Trp Ser Asn Lys
    610   615   620

Ser Leu Glu Gln Ile Trp Asn Asn Met Thr Trp Met Glu Trp Asp Arg
625   630   635   640

Glu Ile Asn Asn Tyr Thr Ser Leu Ile His Ser Leu Ile Glu Glu Ser
                645   650   655

Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu Glu Leu Asp Lys
            660   665   670

Trp Ala Ser Leu Trp Asn Trp Phe Asn Ile Thr Asn Trp Leu Trp Tyr

675   680   685

Ile Lys Leu Phe Ile Met Ile Val Gly Gly Leu Val Gly Leu Arg Ile
    690   695   700

Val Phe Ala Val Leu Ser Val Val Asn Arg Val Arg Gln Gly Tyr Ser
705   710   715   720

Pro Leu Ser Phe Gln Thr His Leu Pro Ile Pro Arg Gly Pro Asp Arg
                725   730   735

Pro Glu Gly Ile Glu Glu Glu Gly Gly Glu Arg Asp Arg Asp Arg Ser
            740   745   750

Ile Arg Leu Val Asn Gly Ser Leu Ala Leu Ile Trp Asp Asp Leu Arg
        755   760   765

Ser Leu Cys Leu Phe Ser Tyr His Arg Leu Arg Asp Leu Leu Leu Ile
    770   775   780

Val Thr Arg Ile Val Glu Leu Leu Gly Arg Arg Gly Trp Glu Ala Leu
785   790   795   800

Lys Tyr Trp Trp Asn Leu Leu Gln Tyr Trp Ser Gln Glu Leu Lys Asn
                805   810   815

Ser Ala Val Ser Leu Leu Asn Ala Thr Ala Ile Ala Val Ala Glu Gly
                820   825   830

Thr Asp Arg Val Ile Glu Val Val Gln Gly Ala Tyr Arg Ala Ile Arg
        835   840   845

His Ile Pro Arg Arg Ile Arg Gln Gly Leu Glu Arg Ile Leu Leu
    850   855   860